Shilin Cao

List of Publications by Year
in descending order

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50 papers	2,015 citations	236925 25 h-index	243625 44 g-index
53 all docs	53 docs citations	53 times ranked	2304 citing authors

#	Article	IF	Citations
1	Biocompatible, self-wrinkled, antifreezing and stretchable hydrogel-based wearable sensor with PEDOT:sulfonated lignin as conductive materials. Chemical Engineering Journal, 2019, 370, 1039-1047.	12.7	230
2	Anti-freezing and moisturizing conductive hydrogels for strain sensing and moist-electric generation applications. Journal of Materials Chemistry A, 2020, 8, 3109-3118.	10.3	158
3	An integrated transparent, UV-filtering organohydrogel sensor via molecular-level ion conductive channels. Journal of Materials Chemistry A, 2019, 7, 4525-4535.	10.3	143
4	Ultrafast gelling using sulfonated lignin-Fe3+ chelates to produce dynamic crosslinked hydrogel/coating with charming stretchable, conductive, self-healing, and ultraviolet-blocking properties. Chemical Engineering Journal, 2020, 396, 125341.	12.7	130
5	Modified Ti3C2TX (MXene) nanosheet-catalyzed self-assembled, anti-aggregated, ultra-stretchable, conductive hydrogels for wearable bioelectronics. Chemical Engineering Journal, 2020, 401, 126129.	12.7	92
6	Ultrasoft Self-Healing Nanoparticle-Hydrogel Composites with Conductive and Magnetic Properties. ACS Sustainable Chemistry and Engineering, 2018, 6, 6395-6403.	6.7	87
7	Robust superhydrophobic and superoleophilic filter paper via atom transfer radical polymerization for oil/water separation. Carbohydrate Polymers, 2018, 181, 419-425.	10.2	78
8	Toward a further understanding of hydrothermally pretreated holocellulose and isolated pseudo lignin. Cellulose, 2015, 22, 1687-1696.	4.9	66
9	A flexible ultraviolet photodetector based on single crystalline MoO₃ nanosheets. Journal of Materials Chemistry C, 2015, 3, 7469-7475.	5.5	64
10	Effect of the degree of substitution on the hydrophobicity of acetylated cellulose for production of liquid marbles. Cellulose, 2016, 23, 811-821.	4.9	64
11	Chemically modified self-doped biocarbon via novel sulfonation assisted sacrificial template method for high performance flexible all solid-state supercapacitor. Journal of Colloid and Interface Science, 2020, 574, 33-42.	9.4	63
12	Wearable lignin-based hydrogel electronics: A mini-review. International Journal of Biological Macromolecules, 2021, 181, 45-50.	7.5	58
13	Preparation of transparent film via cellulose regeneration: Correlations between ionic liquid and film properties. Carbohydrate Polymers, 2019, 203, 214-218.	10.2	53
14	An adaptive ionic skin with multiple stimulus responses and moist-electric generation ability. Journal of Materials Chemistry A, 2020, 8, 17498-17506.	10.3	53
15	Preparation and Characterization of Antibacterial Cellulose/Chitosan Nanofiltration Membranes. Polymers, 2017, 9, 116.	4.5	50
16	Superhydrophobic magnetic poly(DOPAm-co-PFOEA)/Fe₃O₄/cellulose microspheres for stable liquid marbles. Chemical Communications, 2016, 52, 1895-1898.	4.1	46
17	Preparation and Characterization of Cellulose-Based Nanofiltration Membranes by Interfacial Polymerization with Piperazine and Trimesoyl Chloride. ACS Sustainable Chemistry and Engineering, 2018, 6, 13168-13176.	6.7	46
18	Fruit-battery-inspired self-powered stretchable hydrogel-based ionic skin that works effectively in extreme environments. Journal of Materials Chemistry A, 2021, 9, 3968-3975.	10.3	42

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19	Diallyl dimethyl ammonium chloride-grafted cellulose filter membrane via ATRP for selective removal of anionic dye. Cellulose, 2018, 25, 7261-7275.	4.9	38
20	Conductive regenerated cellulose film as counter electrode for efficient dye-sensitized solar cells. Cellulose, 2018, 25, 5113-5122.	4.9	37
21	Ultra-low pressure cellulose-based nanofiltration membrane fabricated on layer-by-layer assembly for efficient sodium chloride removal. Carbohydrate Polymers, 2021, 255, 117352.	10.2	33
22	Synergistic effects of guanidine-grafted CMC on enhancing antimicrobial activity and dry strength of paper. Carbohydrate Polymers, 2014, 110, 382-387.	10.2	32
23	An oriented Fe3+-regulated lignin-based hydrogel with desired softness, conductivity, stretchability, and asymmetric adhesiveness towards anti-interference pressure sensors. International Journal of Biological Macromolecules, 2021, 184, 282-288.	7.5	31
24	Dual-functional chitosanâ€“methylisothiazolinone/microfibrillated cellulose biocomposites for enhancing antibacterial and mechanical properties of agar films. Cellulose, 2014, 21, 519-528.	4.9	30
25	Facile Cellulose Dissolution and Characterization in the Newly Synthesized 1,3-Diallyl-2-ethylimidazolium Acetate Ionic Liquid. Polymers, 2017, 9, 526.	4.5	30
26	Electron beam irradiation of bamboo chips: degradation of cellulose and hemicelluloses. Cellulose, 2014, 21, 3865-3870.	4.9	24
27	The Nature of Hololignin. ACS Sustainable Chemistry and Engineering, 2018, 6, 957-964.	6.7	23
28	Preparation of highly hazy transparent cellulose film from dissolving pulp. Cellulose, 2019, 26, 4061-4069.	4.9	23
29	Kinetic study of pentosan solubility during heating and reacting processes of steam treatment of green bamboo. Bioresource Technology, 2013, 130, 769-776.	9.6	20
30	Ordered Organic Nanostructures Fabricated from Anodic Alumina Oxide Templates for Organic Bulkâ€Heterojunction Photovoltaics. Macromolecular Chemistry and Physics, 2014, 215, 584-596.	2.2	18
31	Facilitate hemicelluloses separation from chemical pulp in ionic liquid/water by xylanase pretreatment. Industrial Crops and Products, 2017, 109, 459-463.	5.2	18
32	Adhesive, Transparent Tannic Acid@ Sulfonated Lignin-PAM Ionic Conductive Hydrogel Electrode with Anti-UV, Antibacterial and Mild Antioxidant Function. Materials, 2019, 12, 4135.	2.9	18
33	Novel functionalization of ZIF-67 for an efficient broad-spectrum photocatalyst: formaldehyde degradation at room temperature. New Journal of Chemistry, 2022, 46, 2962-2970.	2.8	14
34	Preparation and characterization of cellulose nanofiltration membrane through hydrolysis followed by carboxymethylation. Fibers and Polymers, 2017, 18, 1235-1242.	2.1	13
35	Development progress, performance enhancement routes, and applications of paper-based triboelectric nanogenerators. Chemical Engineering Journal, 2022, 430, 132559.	12.7	13
36	Cellulose Paper Modified by a Zinc Oxide Nanosheet Using a ZnCl2-Urea Eutectic Solvent for Novel Applications. Nanomaterials, 2021, 11, 1111.	4.1	11

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37	Effects of hemicellulose content on TEMPO-mediated selective oxidation, and the properties of films prepared from bleached chemical pulp. Cellulose, 2020, 27, 1043-1054.	4.9	9
38	Cocklebur-structured design of plant fibers for high-performance triboelectric nanogenerators and pressure sensors. Materials Today Communications, 2022, 30, 103208.	1.9	8
39	Synergistic effects of enzyme pretreatment for hemicellulose separation from paper-grade pulp in ionic liquid/water. Cellulose, 2018, 25, 4193-4198.	4.9	7
40	Evaluating effects of benzeneâ€“ethanol extraction on molecular weight of lignin isolated from pretreated bamboo substrate. Wood Science and Technology, 2015, 49, 945-955.	3.2	6
41	Thermophilic Anaerobic Digestion of Arundo donax cv. Lvzhou No. 1 for Biogas Production: Structure and Functional Analysis of Microbial Communities. Bioenergy Research, 2020, 13, 866-877.	3.9	6
42	UVâ€“visible diffuse reflectance spectroscopy used in analysis of lignocellulosic biomass material. Wood Science and Technology, 2020, 54, 837-846.	3.2	6
43	Turkey Red oil - An effective alkaline extraction booster for enhanced hemicelluloses separation from bamboo kraft pulp and improved fock reactivity of resultant dissolving pulp. Industrial Crops and Products, 2020, 145, 112127.	5.2	5
44	Comparison of single-stage and two-stage hydrothermal pretreatments for improving hemicellulose separation from bamboo chips. Wood Science and Technology, 2020, 54, 547-557.	3.2	4
45	Synergistic action of EmimAc and aqueous NaOH for selective dissolution of hemicellulose for cellulose purification. Cellulose, 2021, 28, 1331-1338.	4.9	4
46	Insights into the effect of hydrolysis medium on the holocellulose decomposition, furfural, and pseudoâ€lignin formation. Biofuels, Bioproducts and Biorefining, 2021, 15, 1046-1053.	3.7	4
47	An effective metal controller used for enhancing cellulose protection in oxygen delignification. Cellulose, 2019, 26, 7099-7106.	4.9	2
48	Effect of the particle size of magnesium hydroxide on the cellulose polymerization during the oxygen delignification of radiata pine kraft pulp. Cellulose, 2019, 26, 6571-6581.	4.9	2
49	Fruit Peel-Inspired Super-Stable Ionic Organohydrogel Electronics with Dense Hydrophobic Skin. ACS Applied Polymer Materials, 2022, 4, 4673-4680.	4.4	2
50	Limitations on the protective action of MgSO4 for cellulose during kraft pulp oxygen delignification. BioResources, 2020, 16, 1438-1452.	1.0	1